

1. Standard meeting

Performance test: IEC62052-11 2003

IEC62053-21 2003

Impulse output: IEC62053-31 1998

2. Technology target and specification

Reference voltage: $120V \pm 20\%$

Basic current : 5 (60) A

Meter constant: 1600imp/kWh

Rated frequency: 60Hz

Class of accuracy: 1.0 degree

Display: display by LCD, 6+1 15 years' lifetime

Starting current: $0.4\%I_b(1.0\text{degree})$

Creeping: with the logic design of anti-creeping

Power consumption: $\leq 1W$ and 7VA

Width of constant impulse: $60ms \pm 10\%$

Wireless communication: 2400Bt communicating baud rate

Wireless communicating frequency range: 903-927 MHz

Communicating power: 10mW

3. C1W-003-RB module specification

1. Operating principle

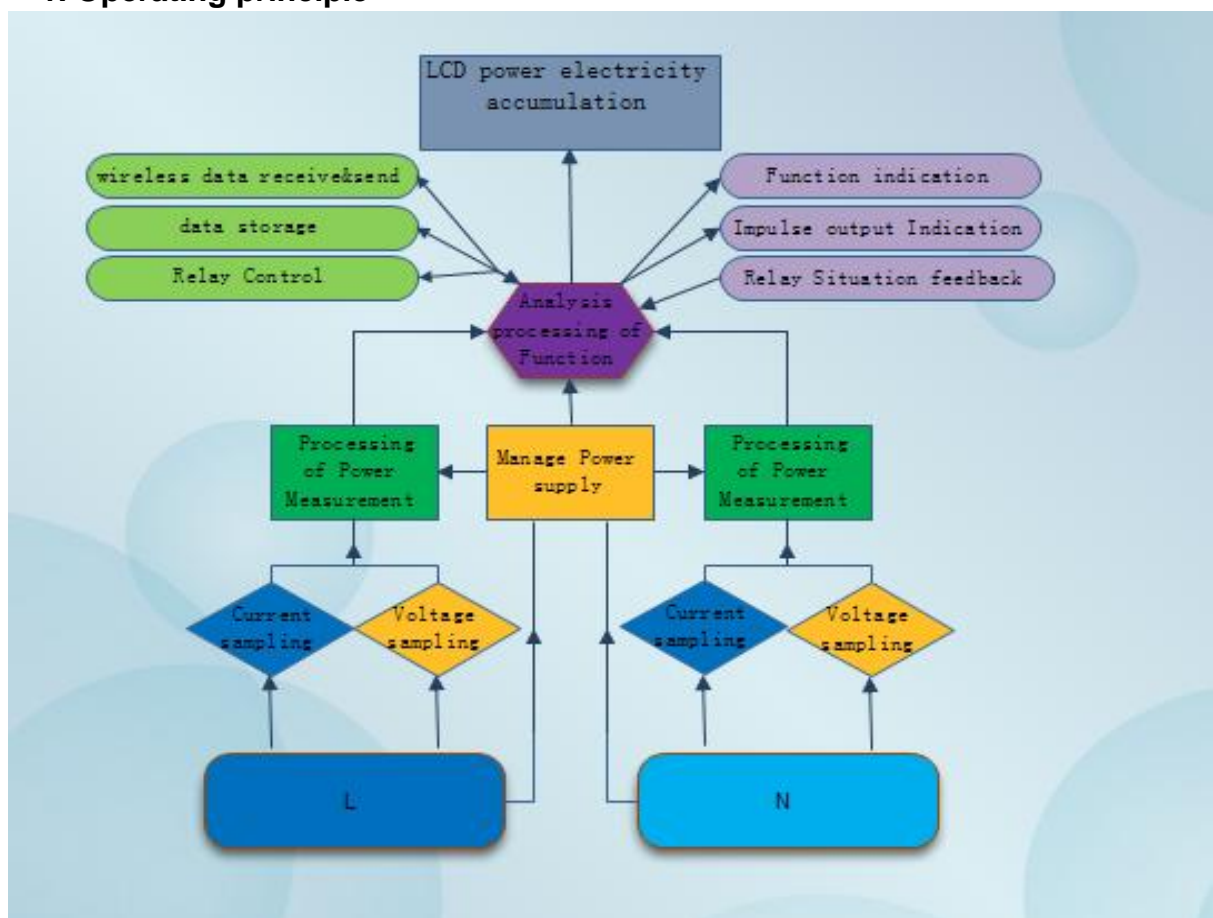


Figure 1 (meter)

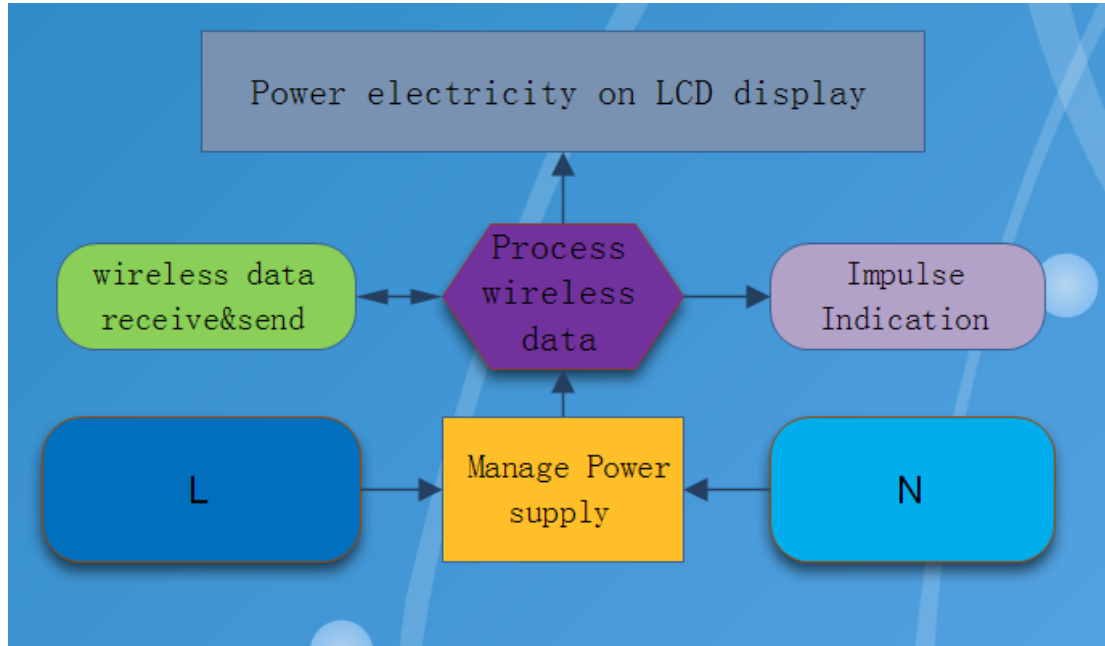


Figure 2 (display)

Operating principle as Figure 1

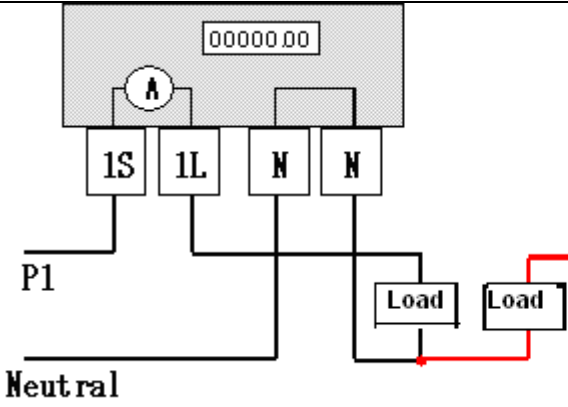
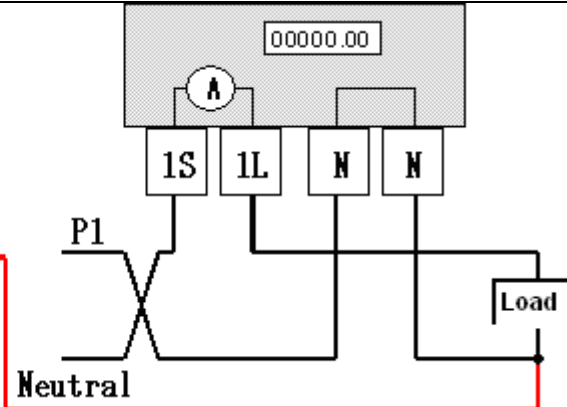
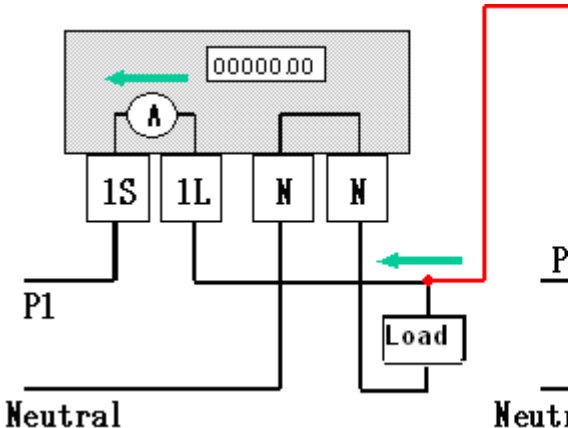
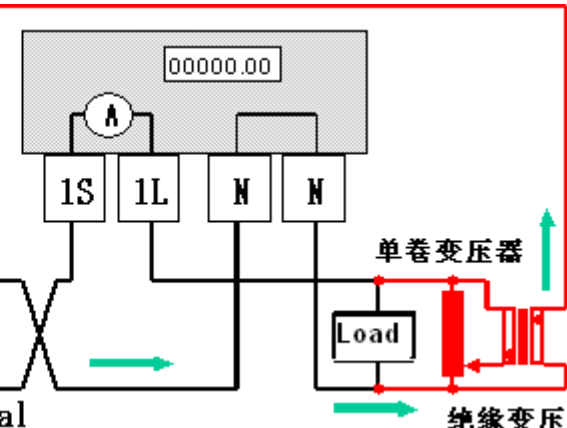
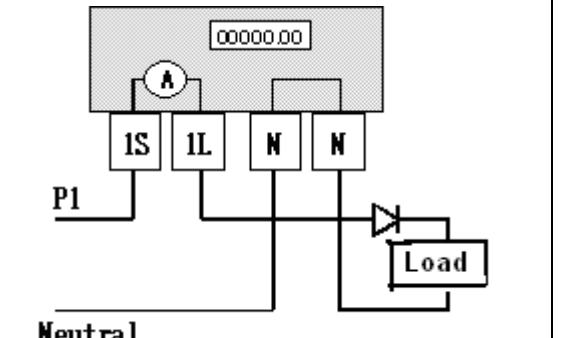
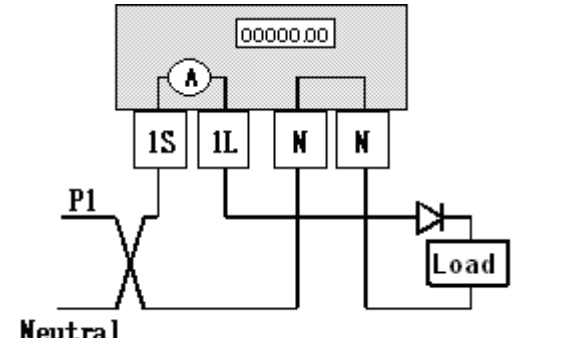
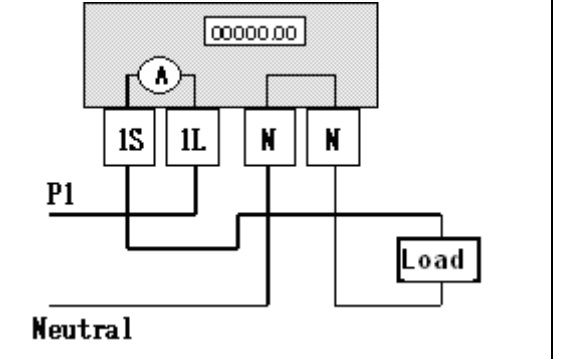
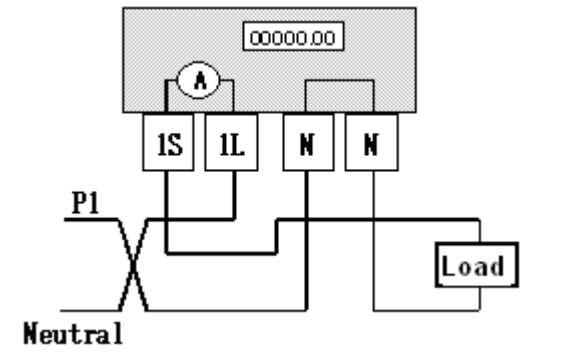
Through professional measuring chip, the voltage and current of two loop circuits(line L and line N) turned into digital form by collecting and multiplying and then transferred to microprocessor. Function processing operated in microprocessor and output: 1. The accumulation of LCD power; 2. The instruction of relay's state; 3. Thief-proof and instruction of reverse electricity; 4. Instruction of impulse constant; 5. RF wireless terminal to terminal communication.

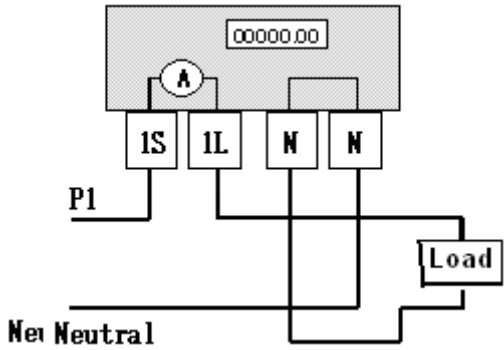
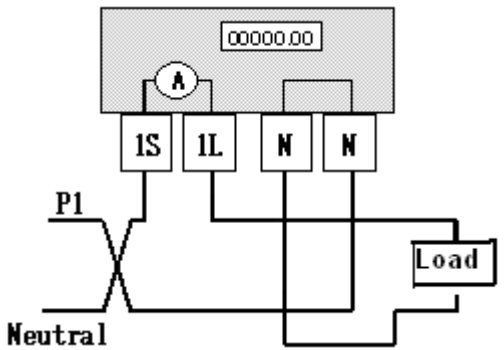
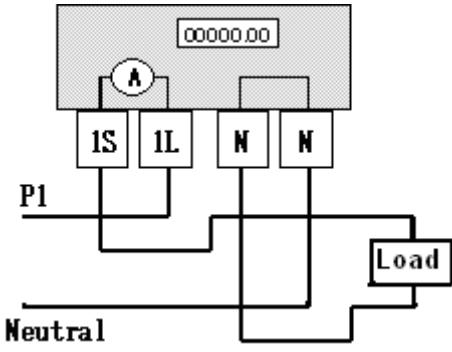
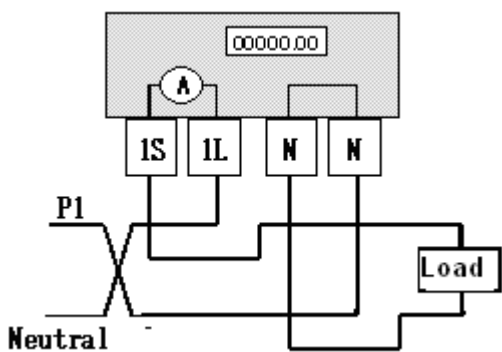
2. Function instruction

- 1.LCD power accumulation: the maximum loss of power data caused by black out $< 0.000625\text{kWh}$
- 2.Revised power calculated in forward direction.
- 3.Function of power thief-proof: when the current discrepancy between line L and line N $> 12\%$ the LCD shows power stealing, and disconnect the P relay.
- 4.The users who use external displays can read the actual electronic consumption of meter.
- 5.total electricity, state of electricity stealing, times of electricity stealing, state of relay, meter reading address can be read by communication.
- 6.The state of relay's switch, eliminating the electricity stealing state, meter's address, meter's code and times of electricity stealing can be set by communication.

Exact function of electricity thief-proofing as below Figure.

All Load short circuit		
All Load connect earth		
Partial Load short circuit		
Partial Load connect earth		

N port			
Reverse Current			
Half Wave			
P input & output exchange			

N input &output exchange				
P input &output exchange N input &output exchange				

NOTE:

Changes or Modifications not expressly approved by the party responsible could void the user's authority to operate this device.

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense

warning : this device may only be installed by professional/trained engineers.